Finding of No Significant Impact

Stillaguamish River Cook Slough Weir Repair
Silvana, Washington

Project Summary

The U.S. Army Corps of Engineers, Seattle District (Corps) proposes to repair the Cook Slough weir, to include replacing approximately 200 linear feet of steel sheet piling, and repair of all deteriorated concrete sections. The existing scour hole on the downstream side of the weir would be filled with rock riprap in order to provide adequate scour protection. The existing fish way structure would be modified to enhance fish passage, and the existing low flow notch would be filled and permanently removed. Temporary access roads would be constructed. Stabilization of the sand/gravel bar would be necessary to support heavy equipment. The project requires construction of a temporary water diversion structure upstream of the weir to partially dewater the weir structure and fish way for equipment access and to complete the repairs. All stabilization materials will be removed and disturbed areas would be restored at project completion.

The proposed weir repair project is located near the city of Silvana, Washington on the Stillaguamish River at the upstream end of Cook Slough, in T31N, R5E, Sec. 6. Interstate 5 is located less than 2,000 feet to the east.

The weir was constructed 1936 to 1937 to provide gradient control in order to keep adequate summer flows in both the Stillaguamish mainstem and Cook Slough. The weir reduces backwater during flood events and provides some fish passage. A fish way was incorporated into the weir in 1988, on the left (South) bank of the river. The existing fish way was a simple baffle system that does not have adequate attraction flows and may contribute to fish stranding at low flow events. Construction is planned for the summer of 2010, and will run from approximately 15 July to 31 October 2010. The starting date is dependent on the flow and river stage, as the repair work will require low flow conditions. The project may require a second year of in water construction activities if unfavorable flow conditions were to persist in the first year.

The downstream sheet piling installed during an earlier repair has failed in the vicinity of the low flow fish notch and in the same area the Wakefield piling cutoff wall has failed. There are numerous large concrete voids with some extending upstream nearly to the second row of timber pilings, and there is a large scour hole immediately downstream of the weir. This scour hole tends to hold fish, and acts to distract fish away from the current fish way. This may lead to stranding and mortality, especially during low flow and high temperature events. Failure of the weir would stress the bank protection system on Cook Slough. A complete failure of the weir would change the flow split between Cook Slough and the main channel. Significant aggradation could be expected on the main channel. The reduction in discharge would greatly reduce the ability of the main channel to remain clear of sediment and could greatly limit fish migration and habitat in the main stem.

Summary of Environmental Impacts

The project provides needed repairs to an existing structure, and uses this action as an opportunity to rework the existing fish way to improve fish passage. Impacts associated with this work include short-term degradation of water quality (turbidity), and an increase in ambient noise levels and air emissions during construction. The project would dewater areas of the weir in order to hydraulically isolate the work area. However, minimum flows to Cook Slough would be maintained. Fish exclusion and removal actions would occur as the work area is isolated, which could result in minor harassment during fish handling. The long term effects of this project will not reduce abundance, productivity, diversity, or spatial structure of listed salmonids. Considering the passage improvements at the weir, the project may improve abundance and productivity. The project incorporates construction best management practices, including turbidity monitoring, as well as state and Federal agency recommendations. Other impacts are expected to be localized in nature, short in duration, and minor in scope.

Coordination and Agency Approval

A Biological Assessment (BA) was prepared and submitted to the National Marine Fisheries Service and the U.S. Fish and Wildlife Service (together referred to as the Services). The BA concluded that due to construction related impacts, involving fish exclusion efforts and possible handling of listed species during site dewatering, and due to the possibility of in water work outside of the construction timing window, the project is likely to adversely affect Puget Sound (PS) Chinook salmon, PS bull trout, and PS steelhead. The proposed project may affect, but is not likely to adversely affect salmonid critical habitat. The project is expected to have no effect on the marbled murrelet or its critical habitat. The Services agreed with the Corps and further concluded that the proposed action is not likely to jeopardize PS bull trout, and that the proposed action, when added to the baseline condition, and when cumulative effects are considered, will maintain or improve population viability for populations of PS Chinook, and PS steelhead.

A Water Quality Certification (WQC) has been issued by the Washington State Department of Ecology (Ecology) for the project. In order ensure that the project will not violate applicable water quality standards and other appropriate requirements of state law the WQC includes conditions. These conditions as well as the recommendations, terms and conditions spelled out in the Federal Services Endangered Species Act consultations will be strictly adhered to throughout the project. Ecology has concurred with the Corps Coastal Consistency Determination, stating that the proposed work is consistent with Washington's Coastal Zone Management Plan.

In order to ensure protection of any cultural resources the Corps has coordinated this project with the Washington State Office of Archaeology and Historic Preservation and the Stillaguamish Tribe. No archaeological sites or other kinds of candidate historic properties were identified, however archeological monitoring during construction would be conducted.

A thirty day public comment period for the project closed on 10 July 2010. No comments were received.

Conclusion

After evaluating the anticipated environmental, economic, and social effects of the proposed activity, it is my determination that construction of the proposed weir repair project does not constitute a major Federal action that would significantly affect the quality of the human environment. The proposed action has been coordinated with the appropriate resource agencies, and there are no significant unresolved issues. Therefore, preparation of an Environmental Impact Statement is not required.

13 JUNE 2010

Date

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District Commander